

REMARKS

Applicant has carefully considered the Office Action of December 1, 2005, and notes with appreciation the withdrawal of the Section 112 rejections, as well as the indication that all claims are directed to novel subject matter as contended in the last response. In response, Applicant respectfully traverses the rejections of all original claims on obviousness grounds and presents new claims 28-45 for consideration in the place of withdrawn claims 11-27, which are cancelled. Upon reviewing the following remarks, it is believed that the Examiner will agree that all claims presented patentably distinguish over the cited prior art and issue a Notice of Allowance to this effect.

Present claim 1 reads on a conformable veil comprising a plurality of fibers having an average length of between approximately 0.5 and 2 meters and a polystyrene-based binder applied to the fibers wherein that binder is substantially soluble in a sheet molding compound resin paste. The Examiner acknowledges that Yamaji et al. fails to teach the use of any fibers having an average length of between approximately 0.5 and 2 meters as set forth in present claim 1. Nevertheless, the Examiner cites *In re Boesch*, 617 F.2d 272, 205 USPQ2d 215 (CCPA 1980) as supporting the contention that it would be "obvious" to arrive at the claimed invention because the claimed diameter is allegedly a "result effective variable."

The decision of *In re Boesch* does indeed stand for the concept that discovering an optimum value of a result effective variable involves only routine

skill in the art. However, the concept of "optimization" defined in *Boesch* relates strictly to the situation where the prior art actually teaches a constituent range overlapping that claimed in the patent application in issue. See *In re Boesch, supra* at 617 F.2d at 274 ("Each of the ranges of constituents in appellants' claimed alloys overlaps ranges disclosed [in the prior art].") (emphasis added). That is absolutely, totally and completely different from the present situation wherein the cited prior art, Yamaji et al., explicitly teaches a range outside the one required in claim 1, a point of fact with which the Examiner agrees. Applicant is clearly not claiming an optimum value within a known range from the prior art, but rather a range that is unknown to the prior art in the claimed combination. Thus, *In re Boesch* is factually distinguishable and not controlling for this reason alone. Accordingly, it does not support the Examiner's position regarding obviousness, and reliance on it is misplaced.

Yamaji et al. explicitly teaches the use of monofilament fibers having a length of between 10 to 200 mm, or a maximum of 0.2 meters. Further, it should be appreciated that this reference teaches that the length range of from 10 to 200 mm is a critical aspect of the invention in order to provide the desired moldability to the mat. In particular the Examiner's attention is directed to col. 2 lines 57-59 and col. 3 line 65 to col. 4 line 2. Since the fiber length range of 10 to 200 mm taught is critical and far outside the length range of 0.5 to 2 meters set forth in present claim 1, an element of the presently claimed invention is absent from Yamaji et al. In such case, the law is clear that a *prima facie* case of

obviousness is lacking. MPEP § 2143.01 ("To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.").

Further evidence of non-obviousness is the fact that the claimed fiber length range of 0.5 to 2 meters is contraindicated by Yamaji et al., which expressly teaches that moldability considerations require a fiber length range of 10 to 200 mm. This range is between 2 ½ and 10 times less than the length range set forth in present claim 1. One skilled in the art reviewing Yamaji et al. would not adopt the fiber length range of the present invention in view of the teachings relating to moldability and the importance of fiber length in this regard. In effect, Yamaji et al. teaches away from the present invention, and it is well established that it is error to find obviousness where the prior art relied upon "diverge[s] from and teach[es] away from the invention at hand." *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 220 USPQ 303, 311 (Fed. Cir. 1983) and *In re Fine*, 5 USPQ2d 1596, 1599 (Fed. Cir. 1988).

Claims 2, 4, 5 and 7-10 which depend from claim 1 and are rejected on the same grounds are equally allowable for the same reasons. Further, these claims include additional limitations that add further support for their allowability. For example, claim 2 provides that the fibers have an average length of between approximately 1 and 2 meters. This length range is even further removed from the length range explicitly taught as critical in Yamaji et al. than the length range

of 0.5 to 2 meters set forth in claim 1. As such, there can be no doubt of the patentability of claim 2 over the teachings of Yamaji et al.

Claim 3 is rejected on obviousness grounds based upon the combination of Yamaji et al. with U.S. Patent 4,579,774 to Kuwazuru et al. Kuwazuru et al. is cited for its disclosure of teaching the provision of binder material in a fiber impregnated product. However, Kuwazuru et al. teaches that the glass fibers should have a length of 0.01 to 30 mm (see col. 3 lines 28-31).

As noted above, the primary reference to Yamaji et al. explicitly teaches away from the present invention by providing that a fiber length of 10 to 200 mm is necessary in order to provide desired moldability. Accordingly, the teachings of the primary reference to Yamaji et al. and the secondary reference to Kuwazuru et al. relating to fiber length both diverge from and teach away from a fiber length of 1 to 2 meters set forth in claim 2 from which claim 3 depends. As such it is very clear that claim 3 patentably distinguishes over the cited art and should be allowed.

Finally, new claim 28 reads on a conformable veil comprising a plurality of fibers having an average length of between approximately 0.5 and 3 meters and a polystyrene-based binder applied to the fibers wherein that binder is substantially soluble in a sheet molding compound resin paste. Dependent claims 29-36 add the details. New claim 37 covers a conformable veil comprising a plurality of fibers having an average length of between approximately 1 and 3 meters and a polystyrene-based binder applied to the fibers wherein that binder

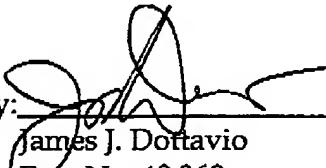
is substantially soluble in a sheet molding compound resin paste, with dependent claims 38-45 adding the details.

Again, nothing in either Yamaji et al. or the secondary reference to Kuwazuru et al. relates to the claimed fiber length of either 0.5 to 3 meters, or 1 to 3 meters. Instead, both diverge from and teach away from such fiber lengths. Accordingly, new claims 28-45 are all believed to patentably distinguish over the cited prior art.

In summary, it is the specific fiber length set forth in the claims that provides the desired fiber entanglement to decrease fiber prominence at the visible surface of the composite part and thereby improve the smoothness of the visible surface. This entanglement also increases the loft of the formed parts (see paragraph 28 of the present application). The use of longer fibers in order to achieve these desirable benefits is simply neither taught nor suggested in the references. In fact the primary reference to Yamaji et al. leads one skilled in the art away from using fibers longer than 0.2 meters in length as such use adversely affects moldability. Based upon these comments it is very clear that all pending claims patentably distinguish over the prior art of record and should be formally allowed. Upon careful review and consideration it is believed the Examiner will agree with this proposition. Accordingly, the early issuance of a formal Notice of Allowance is earnestly solicited.

If any fees are required in respect to this amendment, please debit them from Deposit Account 50-0568.

Respectfully submitted,

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